

PART 1 GENERAL**1.1 SECTION INCLUDES**

1. Cleanroom Ceiling Tiles

1.2 RELATED SECTIONS

1. Division 9 "Ceilings"
2. Division 11 "Laboratory Equipment"
3. Division 13 "Cleanrooms"
4. Division 23 "Mechanical"

1.3 DESIGN REQUIREMENTS

1. Cleanroom Ceiling Tiles shall be designed allowing fit into a standard 2-foot x 4-foot T-bar ceiling grid system. (Custom sizes available)

Model 13CT-24 – 2' x 4' Cleanroom Ceiling Tile

1.4 SUBMITTALS

1. The Cleanroom Ceiling Tile supplier shall furnish shop drawings of all components showing layout, placement, elevations, sections, and details
2. Product Data: Submit manufacturer's data sheet on each product to be used. Include: dimensions, construction details and configurations.
3. Shop Drawings: Provide scalable drawing(s) of ceiling tiles, illustrating front, side, and top views. Drawings shall include all options, special features, component dimensions, construction details and tolerances. Particular attention shall be given to installation interfaces as required by other trades (plumbing fixtures, exhaust connections, electrical requirements, etc.) Drawings shall be available on electronic format for viewing.

1.5 QUALITY ASSURANCE

1. The cleanroom ceiling tiles shall be supplied or furnished by a single manufacturer
2. The manufacturers shall have production facilities including all tools, equipment, and machinery necessary for the fabrication and installation of work specified, complete with skilled personnel.
3. Manufacturer Qualifications: Not less than 10 years experience in the actual production of specified products
4. A list of five (5) installations of comparable stature completed in the past 5 years

1.6 DELIVERY, STORAGE AND HANDLING

1. Packaging: Products shall have adequate packaging to protect the finished surfaces from soiling or damage during shipping
2. Delivery: Deliver materials in manufacturer's original, unopened containers with identification labels intact

3. Storage: Store materials in such a manner as to prevent any damage or intrusion of foreign matter. Store within the building in space designated for storage. Items not properly stored will not be warranted against damage due to unsatisfactory conditions.
4. Handling: Care shall be used at all times to prevent any damage.
5. Waste disposal: Installer of Cleanroom Ceiling Tiles is responsible for removing waste resulting from the installation. Trash container(s) to be provided by others

1.7 PROJECT SITE CONDITIONS

1. Heating and air conditioning systems providing temperature and humidity at occupancy levels
2. Flooring, required to be finished under and behind total exhaust laminar flow hood and equipment
3. Ceiling, overhead ductwork and lighting must be installed
4. Wet operations must be complete prior to installation

1.8 WARRANTY

1. Cleanroom Ceiling Tiles: 2-years from date of shipment. Defects in material and workmanship within this time are to be replaced or repair at no additional charge to the owner
2. Defects include, but are not limited to:
 - a. Shift or failures of connected components
 - b. Failure of cabinet hardware
 - c. Warping or deflection of unloaded case surfaces

PART 2 PRODUCTS

2.1 MANUFACTURER

In order to define a minimum acceptable standard of quality, this specification names whose published products are acceptable

1. Acceptable Manufacturer: Envirowall Cleanroom Ceiling Tiles as supplied by HEPAire Products Corp. 120 Terence Matthews Cres. Unit F1 Ottawa, ON Tel: 613-366-4984 Email: info@hepaireproducts.com

2.2 MATERIALS

1. The core of the cleanroom ceiling tile shall be ½' thick type X gypsum
2. The facing shall be a 2mil USDA accepted white vinyl, washable.
3. Edges of cleanroom ceiling tile shall be sealed to prevent shedding into cleanroom.
4. Weight shall be approximately 2lb per square foot and have a light reflectance of 96.8%
5. Surface burning characteristics as tested in accordance with the standard CAN/ULC S102 will have a flame spread of 20 and a smoke developed of 40

PART 3 EXECUTION

3.1 INSTALLATION

1. Cleanroom ceiling tiles are designed for standard 2' x 4' cleanroom T-grid. Grid installation should be according to grid manufacturers specification.
2. Install accessories in accordance with supplier's recommendations

3.2 CLEANING

1. Remove most dirt and marks with lightly moistened cloth or sponge with mild detergent or non-abrasive cleaner. Rinse with water

3.3 PROTECTION

1. Provide all necessary protective measures to prevent exposure of the tiles from exposure to other construction activity
2. Advise contractor of procedures and precautions for protection of tiles from damage by work of other trades.